

Step 1: Raw material (Copper Panel)



FIG. 1A

Step 2: Both side partial etch

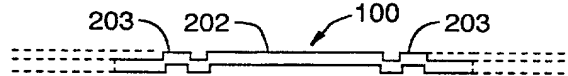


FIG. 1B

Step 3: Full Ni / Pd plating

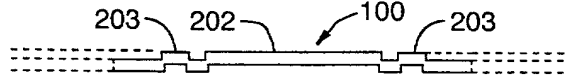


FIG. 1C

Step 4: Assembly ( D / A, W / B and Molding )

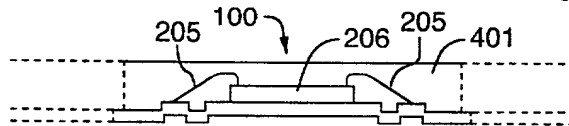


FIG. 1D

Step 5: Photo-resist (wet film) printing and curing (development)

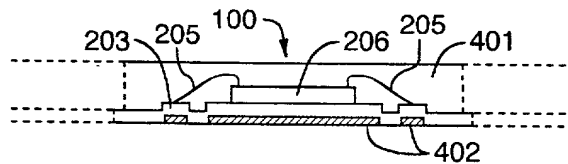


FIG. 1E

Step 6: Final etching

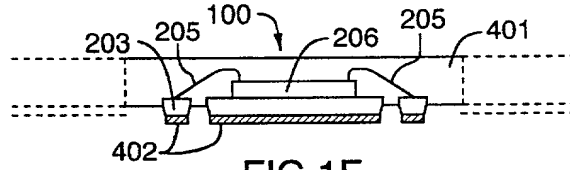


FIG.1F

Step 6.1: Stripping

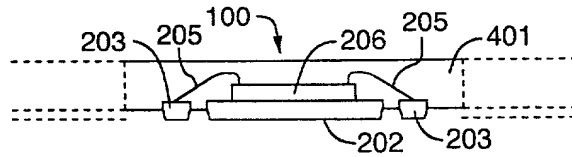


FIG.1G

Step 7: Electroless gold plating

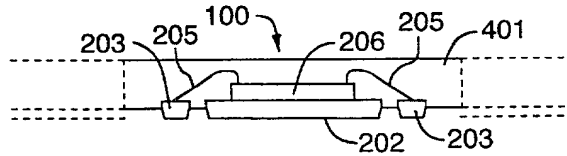


FIG.1H

Step 8: Singulation ( sawing or punching )

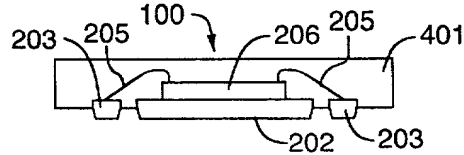


FIG.1I

Step 1: Raw material (Copper Panel)

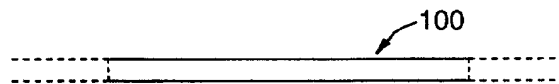


FIG. 2A

Step 2: Both side partial etch (Mirror image)



FIG. 2B

Step 3: Full Ni / Pd or Ag plating

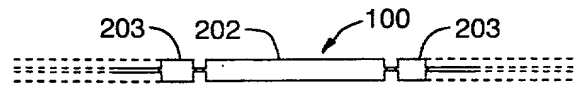


FIG. 2C

Step 4: Assembly ( D / A, W / B and Molding )

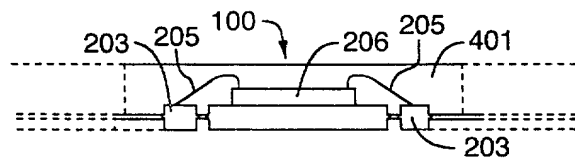


FIG. 2D

Step 5: Final etching

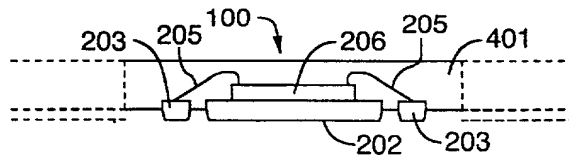


FIG.2E

Step 6: Electroless gold plating

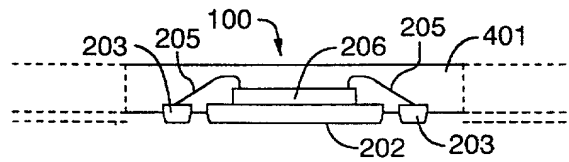


FIG.2F

Step 7: Singulation ( sawing or punching )

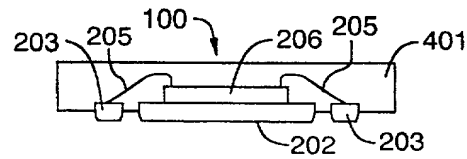


FIG.2G

Step 1: Raw material (Copper Panel)



FIG.3A

Step 2: Top side partial etch

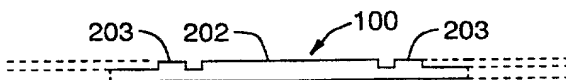


FIG.3B

Step 3: Full Ni / or Ag plating



FIG.3C

Step 4: Assembly ( D / A, W / B and Molding )

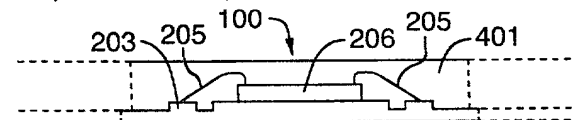


FIG.3D

Step 5: Final etching

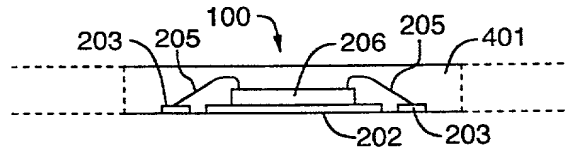


FIG.3E

Step 6: Electroless gold plating

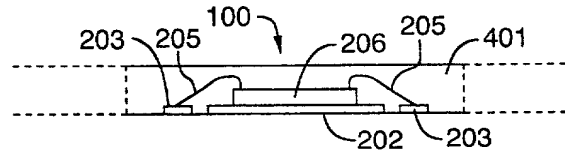


FIG.3F

Step 7: Solder ball attachment (optional)

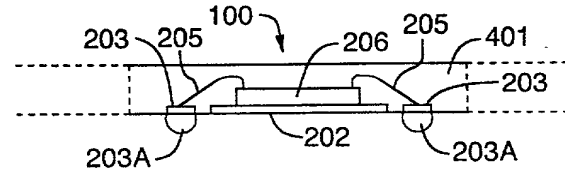


FIG.3G

Step 8: Singulation ( sawing or punching )

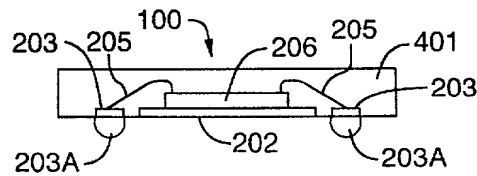


FIG.3H

Step 1: Raw material (Copper Panel)

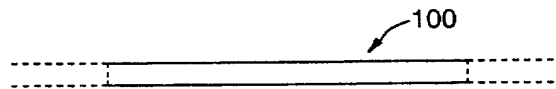


FIG. 4A

Step 2: Top side partial etch

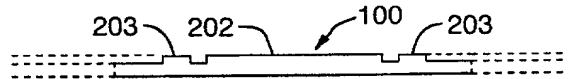


FIG. 4B

Step 3: Full Ni / or Ag plating



FIG. 4C

Step 4: Assembly ( D / A, W / B and Molding )

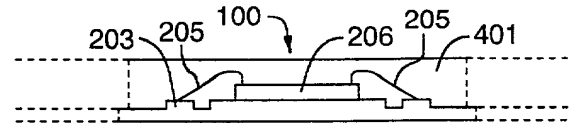


FIG. 4D

Step 5: Photo-resist application, exposure, and developing

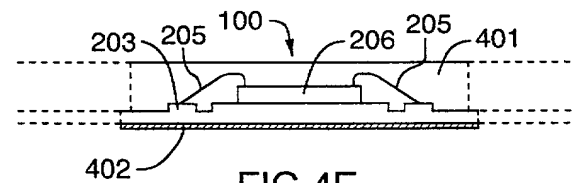
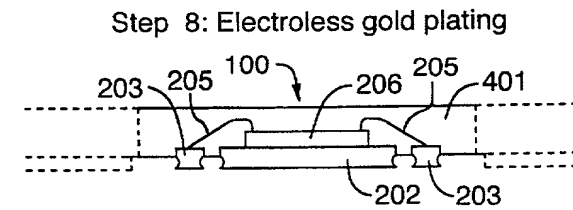
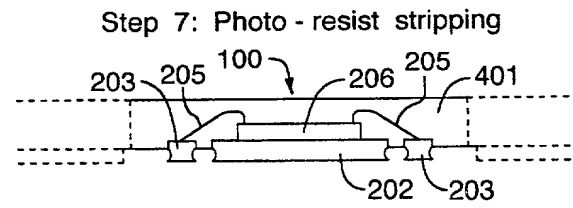
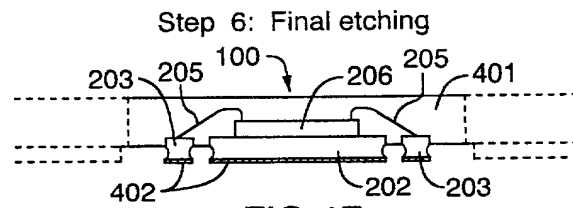
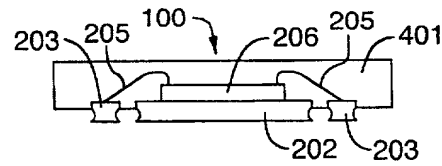


FIG. 4E

Note : Dry film laminating or Wet-film spin coating



Step 8: Singulation ( sawing or punching )





Step 1: Raw material (Copper Panel)



FIG. 5A

Step 2: Photo resist lamination and development



FIG. 5B

Step 3: Cu/Ni/Au electrolytic plat up for "1st level connect"



FIG. 5C

Step 4: Stripping



FIG. 5D

Step 5: -ve photo-resist lamination and development

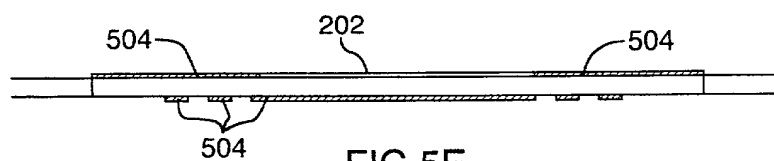


FIG. 5E

Step 6: Pre-etch for 2nd level connect

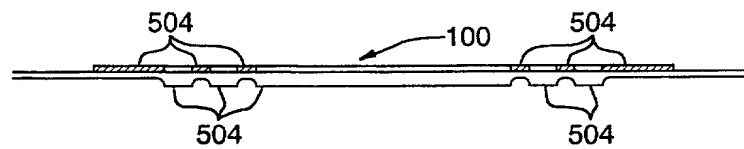


FIG.5F

Step 7: Stripping and clearing

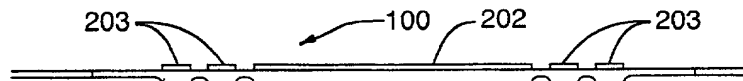


FIG.5G

Step 8: Assembly (D/A, W/B and Mold)

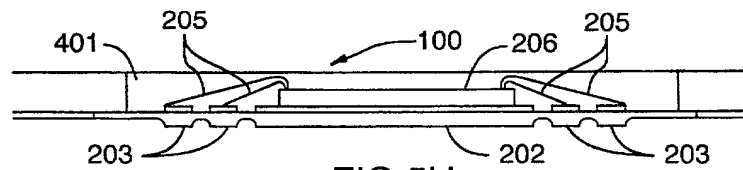


FIG.5H

Step 9: Assembly (Post etching)

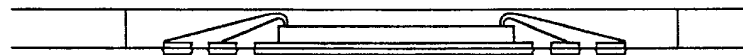


FIG.5I

Step 10: Singulation

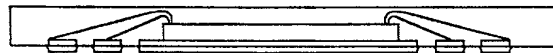


FIG.5J

Step 1: Raw material (Copper Panel)

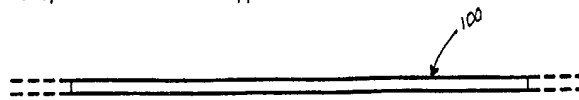


Figure 6A

Step 2: Masking for plat-up process



Figure 6B

Step 3: Plat up for '1st level connect'

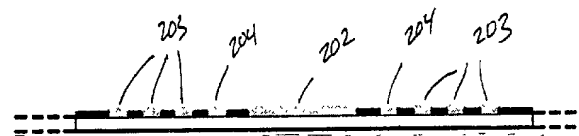


Figure 6C

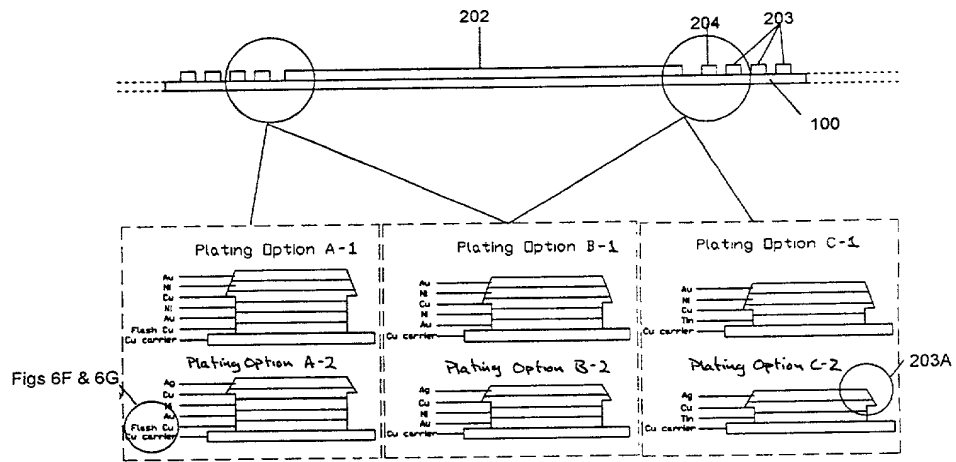


Figure 6D

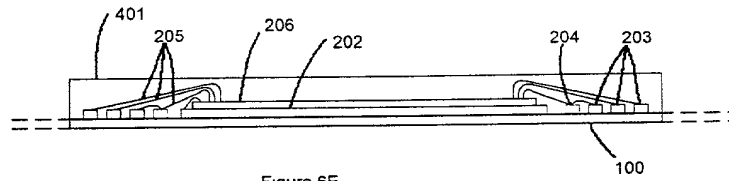


Figure 6E

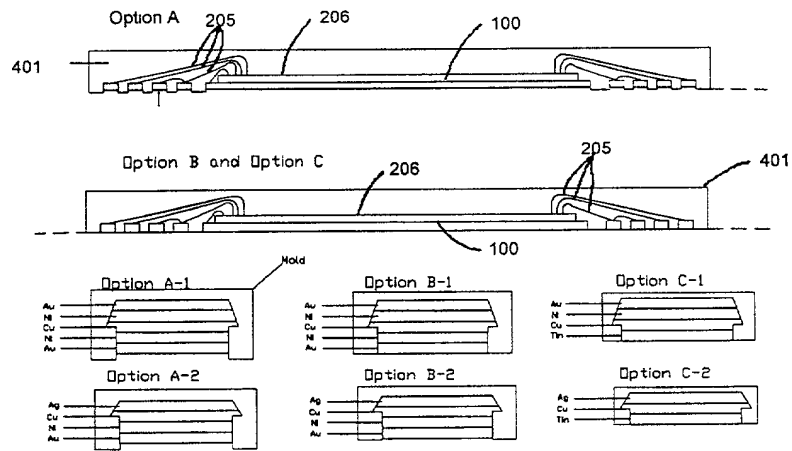


Figure 6F

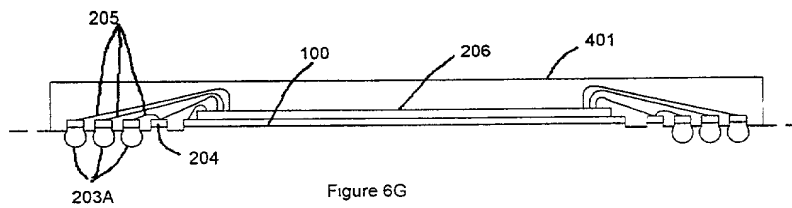


Figure 6G

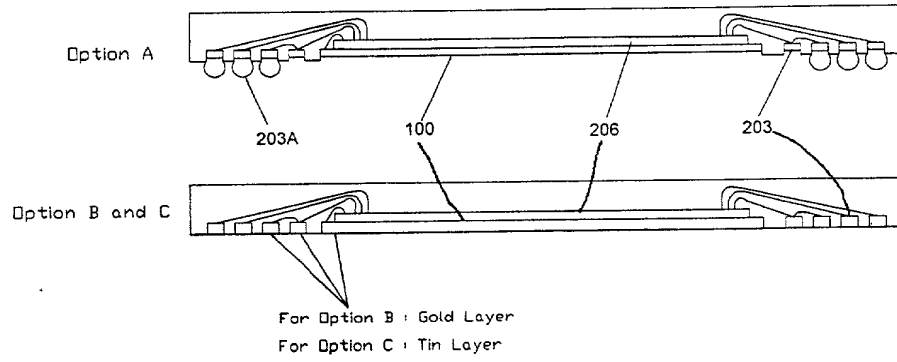
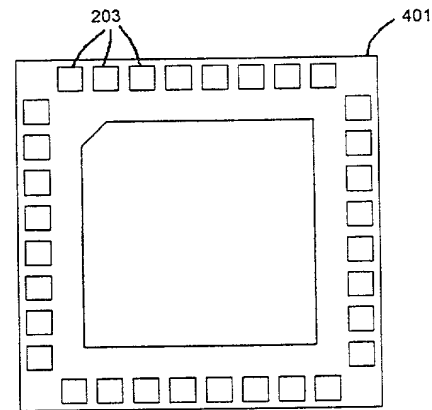


Figure 6H



PERIPHERAL TYPE (SINGLE ROW)

Figure 7

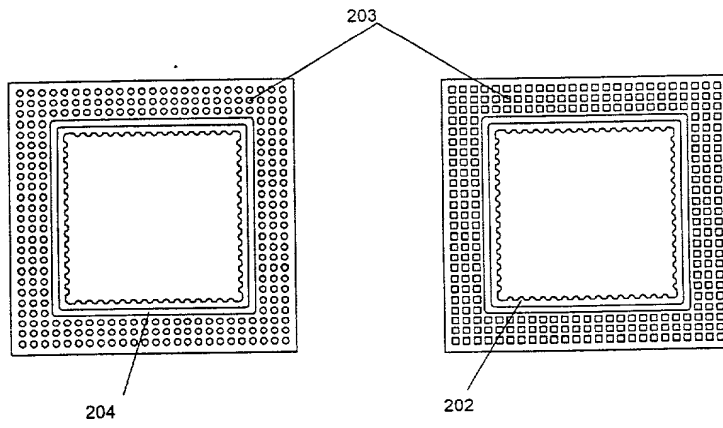


Figure 8A

Figure 8B

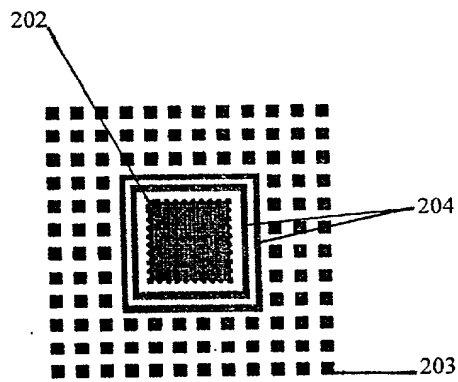


Figure 9